

Amendments To The Claims

Please cancel Claims 1, 13, 25, 32-34, 37 and 44-46 without prejudice. The following list of the claims replaces all prior versions and lists of the claims in this application.

1. (Canceled).

2. (Currently amended) ~~The method of claim 1,~~ A method of scheduling the transmission of data from an access point to a plurality of access terminals serviced by the access point using the corresponding forward communication links between the access point and the access terminals in a CDMA/HDR communications network, comprising:

the access point calculating a scheduling parameter for each of the forward communication links and access terminals as a function of a plurality of operating parameters;
and

the access point scheduling data for transmission to the access terminal having the largest scheduling parameter;

wherein the access point calculates the scheduling parameter for each of the forward communication links and access terminals as a function of a frame utilization for the corresponding forward communication link and access terminal.

3. (Original) The method of claim 2, wherein the frame utilization is calculated as a function of a size of a data payload available to send to the corresponding access terminal and a size of the physical layer packet for the corresponding access terminal.

4. (Original) The method of claim 2, wherein the access point calculates the frame utilization U_{FRAMEi} for the i th forward communication link and access terminal using the following expression:

$$U_{FRAMEi} = DPA_i / PS_i ;$$

wherein DPA_i = the size of the data payload available to send to the i th access terminal; and
 PS_i = the physical layer packet size corresponding to a maximum data transmission rate for the i th access terminal.

5. (Original) The method of claim 2, wherein the access point calculates the scheduling parameter for each of the forward communication links and access terminals as a function of the frame utilization, a maximum data transmission rate, and an average data transmission rate for the corresponding forward communication link and access terminal.

6. (Original) The method of claim 5, wherein the frame utilization is calculated as a function of a size of a data payload available to send to the corresponding access terminal and a size of the physical layer packet for the corresponding access terminal.

7. (Original) The method of claim 5, wherein the access point calculates the frame utilization U_{FRAMEi} for the i th forward communication link and access terminal using the following expression:

$$U_{FRAMEi} = DPA_i / PS_i ;$$

wherein DPA_i = the size of the data payload available to send to the i th access terminal; and
 PS_i = the physical layer packet size corresponding to a maximum data transmission rate for the i th access terminal.

8. (Currently amended) ~~The method of claim 1,~~ A method of scheduling the transmission of data from an access point to a plurality of access terminals serviced by the access

point using the corresponding forward communication links between the access point and the access terminals in a CDMA/HDR communications network, comprising:

the access point calculating a scheduling parameter for each of the forward communication links and access terminals as a function of a plurality of operating parameters;
and

the access point scheduling data for transmission to the access terminal having the largest scheduling parameter;

wherein the access point calculates the scheduling parameter for each of the forward communication links and access terminals as a function of one or more weighting factors, a maximum data transmission rate, and an average data transmission rate for the corresponding forward communication link and access terminal.

9. (Original) The method of claim 8, wherein the weighting factors are selected from the group consisting of:

a frame utilization for the corresponding forward communication link and access terminal; and

a priority of the data to be transmitted to the corresponding access terminal.

10. (Currently amended) ~~The method of claim 1,~~ A method of scheduling the transmission of data from an access point to a plurality of access terminals serviced by the access point using the corresponding forward communication links between the access point and the access terminals in a CDMA/HDR communications network, comprising:

the access point calculating a scheduling parameter for each of the forward communication links and access terminals as a function of a plurality of operating parameters;
and

the access point scheduling data for transmission to the access terminal having the largest scheduling parameter;

wherein the access point calculates the scheduling parameter for each of the forward communication links and access terminals as a function of a priority of the data to be sent to the corresponding access terminal.

11. (Currently amended) The method of ~~claim 1~~ claim 2, wherein the access point ~~calculates a~~ calculates the scheduling parameter P_i for an i th access terminal and forward communication link using the following expression:

$$P_i = (R_{MAXi} / R_{AVGi}) * U_{FRAMEi} ;$$

wherein P_i = the scheduling parameter for the i th forward communication link for the corresponding i th access terminal;

R_{MAXi} = the maximum data transmission rate for the i th forward communication link for the corresponding i th access terminal;

R_{AVGi} = the average data transmission rate for the i th forward communication link for the i th corresponding i th access terminal for a predetermined time period; and

U_{FRAMEi} = the frame utilization for the i th forward communication link for the corresponding i th access terminal.

12. (Original) The method of claim 11, wherein the access point calculates the frame utilization U_{FRAMEi} for the i th forward communication link and access terminal using the following expression:

$$U_{FRAMEi} = DPA_i / PS_i ;$$

wherein DPA_i = the size of the data payload available to send to the i th access terminal; and
 PS_i = the physical layer packet size corresponding to R_{MAXi} .

13. (Canceled).

14. (Currently amended) ~~The communications network of claim 13,~~ A communications network, comprising:

a plurality of access terminals; and

an access point operably coupled to the access terminals by a plurality of corresponding forward communication links;

wherein the access point is adapted to calculate a scheduling parameter for each of the forward communication links and access terminals as a function of a plurality of operating parameters; and

wherein the access point is adapted to schedule data for transmission to the access terminal having the largest scheduling parameter;

wherein the access point is adapted to calculate the scheduling parameter for each of the forward communication links and access terminals as a function of a frame utilization for the corresponding forward communication link and access terminal.

15. (Original) The communications network of claim 14, wherein the frame utilization is calculated as a function of a size of a data payload available to send to the corresponding access terminal and a size of the physical layer packet for the corresponding access terminal.

16. (Original) The communications network of claim 14, wherein the access point is adapted to calculate the frame utilization U_{FRAMEi} for the i th forward communication link and access terminal using the following expression:

$$U_{FRAMEi} = DPA_i / PS_i ;$$

wherein DPA_i = the size of the data payload available to send to the i th access terminal; and
 PS_i = the physical layer packet size corresponding to a maximum data transmission rate for the i th access terminal.

17. (Original) The communications network of claim 14, wherein the access point is adapted to calculate the scheduling parameter for each of the forward communication links and access terminals as a function of the frame utilization, a maximum data transmission rate, and an average data transmission rate for the corresponding forward communication link and access terminal.

18. (Original) The communications network of claim 17, wherein the frame utilization is calculated as a function of a size of a data payload available to send to the corresponding access terminal and a size of the physical layer packet for the corresponding access terminal.

19. (Original) The communications network of claim 17, wherein the access point is adapted to calculate the frame utilization U_{FRAMEi} for the i th forward communication link and access terminal using the following expression:

$$U_{FRAMEi} = DPA_i / PS_i ;$$

wherein DPA_i = the size of the data payload available to send to the i th access terminal; and
 PS_i = the physical layer packet size corresponding to a maximum data transmission rate for the i th access terminal.

20. (Currently amended) ~~The communications network of claim 13,~~ A communications network, comprising:

a plurality of access terminals; and

an access point operably coupled to the access terminals by a plurality of corresponding forward communication links;

wherein the access point is adapted to calculate a scheduling parameter for each of the forward communication links and access terminals as a function of a plurality of operating parameters; and

wherein the access point is adapted to schedule data for transmission to the access terminal having the largest scheduling parameter;

wherein the access point is adapted to calculate the scheduling parameter for each of the forward communication links and access terminals as a function of one or more weighting factors, a maximum data transmission rate, and an average data transmission rate for the corresponding forward communication link and access terminal.

21. (Original) The communications network of claim 20, wherein the weighting factors are selected from the group consisting of:

a frame utilization for the corresponding forward communication link and access terminal; and

a priority of the data to be transmitted to the corresponding access terminal.

22. (Currently amended) ~~The communications network of claim 13,~~ A communications network, comprising:

a plurality of access terminals; and

an access point operably coupled to the access terminals by a plurality of corresponding forward communication links;

wherein the access point is adapted to calculate a scheduling parameter for each of the forward communication links and access terminals as a function of a plurality of operating parameters; and

wherein the access point is adapted to schedule data for transmission to the access terminal having the largest scheduling parameter;

wherein the access point is adapted to calculate the scheduling parameter for each of the forward communication links and access terminals as a function of a priority of the data to be sent to the corresponding access terminal.

23. (Currently amended) The communications network of ~~claim 13~~ claim 14, wherein the access point is adapted to ~~calculate a~~ calculate the scheduling parameter P_i for an i th access terminal and forward communication link using the following expression:

$$P_i = (R_{MAXi} / R_{AVGi}) * U_{FRAMEi} ;$$

wherein P_i = the scheduling parameter for the i th forward communication link for the corresponding i th access terminal;

R_{MAXi} = the maximum data transmission rate for the i th forward communication link for the corresponding i th access terminal;

R_{AVGi} = the average data transmission rate for the i th forward communication link for the i th corresponding i th access terminal for a predetermined time period; and

U_{FRAMEi} = the frame utilization for the i th forward communication link for the corresponding i th access terminal.

24. (Original) The communications network of claim 23, wherein the access point is adapted to calculate the frame utilization U_{FRAMEi} for the i th forward communication link and access terminal using the following expression:

$$U_{FRAMEi} = DPA_i / PS_i ;$$

wherein DPA_i = the size of the data payload available to send to the i th access terminal; and
 PS_i = the physical layer packet size corresponding to R_{MAXi} .

25. (Canceled).

26. (Currently amended) ~~The computer program of claim 25,~~ A computer program for scheduling the transmission of data from an access point to a plurality of access terminals serviced by the access point using the corresponding forward communication links between the access point and the access terminals in a CDMA/HDR communications network, comprising instructions for:

the access point calculating a scheduling parameter for each of the forward communication links and access terminals as a function of a plurality of operating parameters;
and

the access point scheduling data for transmission to the access terminal having the largest scheduling parameter;

wherein the access point calculates the scheduling parameter for each of the forward communication links and access terminals as a function of a frame utilization for the corresponding forward communication link and access terminal.

27. (Original) The computer program of claim 26, wherein the frame utilization is calculated as a function of a size of a data payload available to send to the corresponding access terminal and a size of the physical layer packet for the corresponding access terminal.

28. (Original) The computer program of claim 26, wherein the access point calculates the frame utilization U_{FRAMEi} for the i th forward communication link and access terminal using the following expression:

$$U_{FRAMEi} = DPA_i / PS_i ;$$

wherein DPA_i = the size of the data payload available to send to the i th access terminal; and
 PS_i = the physical layer packet size corresponding to a maximum data transmission rate for the i th access terminal.

29. (Original) The computer program of claim 26, wherein the access point calculates the scheduling parameter for each of the forward communication links and access terminals as a function of the frame utilization, a maximum data transmission rate, and an average data transmission rate for the corresponding forward communication link and access terminal.

30. (Original) The computer program of claim 29, wherein the frame utilization is calculated as a function of a size of a data payload available to send to the corresponding access terminal and a size of the physical layer packet for the corresponding access terminal.

31. (Original) The computer program of claim 29, wherein the access point calculates the frame utilization U_{FRAMEi} for the i th forward communication link and access terminal using the following expression:

$$U_{FRAMEi} = DPA_i / PS_i ;$$

wherein DPA_i = the size of the data payload available to send to the i th access terminal; and
 PS_i = the physical layer packet size corresponding to a maximum data transmission rate for the i th access terminal.

Claims 32-34 (Canceled).

35. (Currently amended) The computer program of ~~claim 25~~ claim 26, wherein the access point ~~calculates a~~ calculates the scheduling parameter P_i for an i th access terminal and forward communication link using the following expression:

$$P_i = (R_{MAXi} / R_{AVGi}) * U_{FRAMEi} ;$$

wherein P_i = the scheduling parameter for the i th forward communication link for the corresponding i th access terminal;

R_{MAXi} = the maximum data transmission rate for the i th forward communication link for the corresponding i th access terminal;

R_{AVGi} = the average data transmission rate for the i th forward communication link for the i th corresponding i th access terminal for a predetermined time period; and

U_{FRAMEi} = the frame utilization for the i th forward communication link for the corresponding i th access terminal.

36. (Original) The computer program of claim 35, wherein the access point calculates the frame utilization U_{FRAMEi} for the i th forward communication link and access terminal using the following expression:

$$U_{FRAMEi} = DPA_i / PS_i ;$$

wherein DPA_i = the size of the data payload available to send to the i th
 access terminal; and
 PS_i = the physical layer packet size corresponding to R_{MAXi} .

37. (Canceled).

38. (Currently amended) ~~The communications network of claim 37, further~~
~~comprising:~~ A communications network, comprising:
a plurality of access terminals;
an access point operably coupled to the access terminals by a plurality of corresponding
forward communication links;
means for calculating a scheduling parameter for each of the forward communication
links and access terminals as a function of a plurality of operating parameters;
means for scheduling data for transmission to the access terminal having the largest
scheduling parameter; and
 means for calculating the scheduling parameter for each of the forward communication
 links and access terminals as a function of a frame utilization for the corresponding forward
 communication link and access terminal.

39. (Original) The communications network of claim 38, further comprising:
 means for calculating the frame utilization as a function of a size of a data payload
 available to send to the corresponding access terminal and a size of the physical layer packet for
 the corresponding access terminal.

40. (Original) The communications network of claim 38, further comprising:
 means for calculating the frame utilization U_{FRAMEi} for the i th forward communication
 link and access terminal using the following expression:

$$U_{FRAMEi} = DPA_i / PS_i ;$$

wherein DPA_i = the size of the data payload available to send to the i th access terminal; and
 PS_i = the physical layer packet size corresponding to a maximum data transmission rate for the i th access terminal.

41. (Original) The communications network of claim 38, further comprising:
means for calculating the scheduling parameter for each of the forward communication links and access terminals as a function of the frame utilization, a maximum data transmission rate, and an average data transmission rate for the corresponding forward communication link and access terminal.

42. (Original) The communications network of claim 41, further comprising:
means for calculating the frame utilization as a function of a size of a data payload available to send to the corresponding access terminal and a size of the physical layer packet for the corresponding access terminal.

43. (Original) The communications network of claim 41, further comprising:
means for calculating the frame utilization U_{FRAMEi} for the i th forward communication link and access terminal using the following expression:

$$U_{FRAMEi} = DPA_i / PS_i ;$$

wherein DPA_i = the size of the data payload available to send to the i th access terminal; and
 PS_i = the physical layer packet size corresponding to a maximum data transmission rate for the i th access terminal.

Claims 44-46 (Canceled).

47. (Currently amended) The communications network of ~~claim 37~~ claim 38, further comprising: means for ~~calculating a~~ calculating the scheduling parameter P_i for an i th access terminal and forward communication link using the following expression:

$$P_i = (R_{MAXi} / R_{AVGi}) * U_{FRAMEi} ;$$

wherein P_i = the scheduling parameter for the i th forward communication link for the corresponding i th access terminal;

R_{MAXi} = the maximum data transmission rate for the i th forward communication link for the corresponding i th access terminal;

R_{AVGi} = the average data transmission rate for the i th forward communication link for the i th corresponding i th access terminal for a predetermined time period; and

U_{FRAMEi} = the frame utilization for the i th forward communication link for the corresponding i th access terminal.

48. (Original) The communications network of claim 47, further comprising:
means for calculating the frame utilization U_{FRAMEi} for the i th forward communication link and access terminal using the following expression:

$$U_{FRAMEi} = DPA_i / PS_i ;$$

wherein DPA_i = the size of the data payload available to send to the i th access terminal; and

PS_i = the physical layer packet size corresponding to R_{MAXi} .